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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/520,960

02/03/2006

Christian Koeniger

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4786

35204

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01/28/2008

SCHLUMBERGER RESERVOIR COMPLETIONS

14910 AIRLINE ROAD

ROSHARON, TX 77583

EXAMINER

JAGAN, MIRELLYS

ART UNIT

PAPER NUMBER

2855

NOTIFICATION DATE

DELIVERY MODE

01/28/2008

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

vsolis2@slb.com

**Office Action Summary**

Application No.

10/520,960

Applicant(s)

KOENIGER ET AL.

Examiner

Mirellys Jagan

Art Unit

2855

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 26 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-5, 8-10, 17-21, 28, 30, 31, 36, 43-45 and 51-55 is/are pending in the application.
- 4a) Of the above claim(s) 43-45 and 51-55 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5, 8-10, 17, 28, 30, 31 and 36 is/are rejected.
- 7) ☒ Claim(s) 18-21 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 January 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Election/Restrictions*

1. Restriction is required under 35 U.S.C. 121 and 372. This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1. In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claims 1-5, 8-10, 17-21, 28, 30, 31, and 36, drawn to a system and method of measuring temperature.

Group II, claims 43-45 and 51-55, drawn to a method of measuring solids.

2. The inventions listed as Groups I and II do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons:

Group I claims a system and method of measuring temperature in a well; and Group II claims a method of measuring solids. In this case, the special technical featured stated above, i.e., measuring temperature and measuring solids, are different for each of the Groups. Therefore, the inventions listed as Groups I and II do not relate to a single inventive concept since they lack the same or corresponding special technical features.

3. During a telephone conversation with Bryan Galloway on January 4, 2008 a provisional election was made without traverse to prosecute the invention of Group I, claims 1-5, 8-10, 17-21, 28, 30, 31, and 36. Affirmation of this election must be made by applicant in replying to this Office action. Claims 43-45 and 51-55 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

4. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

#### ***Claim Objections***

5. Claims 1-5, 8-10, 17-21, 28, 30, 31, and 36 are objected to because of the following informalities:

In claims 1 and 28, there is lack of antecedent basis in the claims for "the ocean".

Claims 2-5, 8-10, 17-21, 30, 31, and 36 are objected to for being dependent on an objected base claim.

Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1-5, 8-10, 17, 28, 30, 31, and 36 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent 6,640,900 to Smith.

Referring to claims 1-5, 8-10, and 17, Smith discloses a system for measuring a parameter in a subsea well, comprising:

- a riser extending from a platform adjacent the sea surface towards the sea bottom;
- a landing string extending within the riser from the platform towards the sea bottom;
- a line extending along at least part of a length of the landing string and including a distributed sensor system for sensing the parameter at various points along the length of the landing string; and
- a conduit located proximate the landing string;

wherein the landing string extends at least partially within a pressure control equipment at the sea bottom, and the line extends at least partially within the pressure control equipment; the conduit is within a control umbilical deployed as part of the landing string; the line comprises a fiber optic line; the parameter measured is temperature; the distributed sensor system comprises a plurality of sensors distributed along the length of the line; the line is mechanically

attached to the landing string; the fiber optic line is located within the conduit; the landing string is landed on a landing shoulder located on a pressure control equipment, and the line extends below the landing shoulder (see figure 3; column 3, lines 1-8 and 34-40; column 4, lines 45-48 and 53-56; column 4, line 67-column 5, line 4; column 5, lines 34-37; column 5, line 55-column 65, line 1; column 6, lines 62-66; column 7, lines 30-36 and 53-59; and column 7, line 65-column 8, line 11).

Referring to claims 28, 30, 31, and 36, Smith discloses a method for measuring a parameter in a subsea well, comprising:

deploying a landing string within a riser, the landing string and riser extending from a platform on the sea surface towards the sea bottom;

deploying a line along at least part of a length of the landing string, the line including a distributed sensor system for sensing the parameter at various points along the length of the landing string; and

measuring the parameter at the various measurement points along the length of the landing string;

wherein the measuring step comprises measuring temperature at the various measurement points along the length of the landing string; the line comprises a fiber optic line; the measuring step comprises transmitting light through the fiber optic line and analyzing the returned back-scattered light to provide a complete temperature profile along the length of the fiber line; and the deploying the landing string step comprises landing out the landing string at a landing shoulder located on pressure control equipment, and the deploying the line step comprises extending the line below the landing shoulder (see figure 3; column 3, lines 1-8 and 34-40;

column 4, lines 45-48 and 53-56; column 4, line 67-column 5, line 4; column 5, lines 34-37; column 5, line 55-column 65, line 1; column 6, lines 62-66; column 7, lines 30-36 and 53-59; and column 7, line 65-column 8, line 11).

***Allowable Subject Matter***

8. Claim 18 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims, and amended to overcome the objections set forth in this Office action.

Claims 19-21 are allowable for being dependent on allowable base claim 18.

9. The following is a statement of reasons for the indication of allowable subject matter:

The prior art of record does not disclose or suggest the following in combination with the remaining limitations of the claims:

A system for measuring a parameter in a subsea well, wherein the landing string includes a passageway having a port above the landing shoulder and a port below the landing shoulder, each port providing communication to the exterior of the landing string; and the line is extended below the landing shoulder by passing the line through the passageway and the ports past the landing shoulder (see claim 18).

***Conclusion***

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following references disclose distributed temperature measurement for wells:

U.S. Patent 7,304,725 to Hartog et al  
U.S. Patent 7,055,604 to Jee et al  
U.S. Patent 6,994,162 to Robison  
U.S. Patent Application Publication 2005/0211441 to Vold et al  
U.S. Patent Application Publication 2007/0235223 to Tarr et al  
U.S. Patent Application Publication 2006/0165344 to Mendez et al  
U.S. Patent Application Publication 2004/0252748 to Gleitman

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mirellys Jagan whose telephone number is 571-272-2247. The examiner can normally be reached on Monday-Friday from 12PM to 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ed Lefkowitz can be reached on 571-272-2180. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MJ  
January 15, 2008

  
VERBITSKY  
EXAMINER